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THREE LAPAROTOMIES ON ONE PATIENT: RECOVERY.

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PETER M., laborer, æt. 30, a strong, stout man, was admitted to the hospital June 8, 1888. An examination revealed acute appendicitis, for which I operated the next day. The case was reported in the *Annals of Surgery*, February, 1889. He returned to the hospital August 12, 1889, with a ventral hernia at the site of the operation. The hernia was pendulous and formed a tumor as large as the double fist.

In the operation to remove the diseased appendix, an incision four inches long was made, commencing an inch above the middle of Poupart's ligament and extending upward and outward over the most prominent part of the swelling. In operating for the ventral hernia I thought the best procedure would be to make an incision along the center of the cicatrix, cut away all of the same, and bring the sound tissues together. In attempting to execute this idea I made the incision in the center and in the long axis of the cicatrix, holding it well up as I supposed from the intestines. When the knife entered what we took to be the peritoneal cavity I was mortified to find that I had cut directly into an intestine. Fluid feces flowed from the wound. The finger introduced discovered the gut adherent to the entire under surface of the cicatrix: in fact, they were virtually *one wall.*

I next made an opening into the cavity through sound tissue to the inner side of the cicatrix, introduced the finger, and attempted to break up the adhesions between it and the intestine. I succeeded in this, but in doing so, tore the opening in the gut still larger. I now had the intestine denuded of four inches of its peritoneal coat with a transverse hole in it occupying half its circumference. I was considerably puzzled to know just how to proceed in the premises, but concluded that resection was the only feasible procedure.

Four inches of the intestine, together with sufficient mesentery to make the proper V-shape, were removed. The mesenteric wound was closed by a continuous iron-dyed silk suture. In making the circular enterorrhaphy I used Senn's rubber ring, and was extremely pleased to find how quickly it enabled me to finish the operation. The entire operation, from the first incision to putting patient to bed, was thirty-five minutes.

No feces escaped into the peritoneal cavity. I had taken the precaution to pull out the intestine, empty it, and have an assistant compress it on each side of the wound to prevent the escape of fecal matter. The cicatrix was cut away and the wound closed without drainage.

It healed by first intention. The patient stood the operation well. For seven or eight days he had some pain in the abdomen and vomited occasionally, but at no time did his pulse exceed 90, nor did his temperature reach 102 F. except on one afternoon. As he had been given a purgative before the operation no attempt was made to move the bowels for a week, when enemas were given which produced several actions.

About the tenth day a diarrhea developed which lasted six or eight days. At that time a mild attack of dysentery supervened which lasted about a week, after which the patient made a rapid recovery. He was out of bed on September 8th, twenty-four days after the operation, and in a few days he was doing detail work around the hospital.

Unfortunately the parties watching the patient failed to discover the rubber ring in the feces, although they were given positive instructions to carefully watch for the same. I take it that the diarrhea was caused by irritation at the site of the rubber ring.

On September 30th, while apparently in the enjoyment of excellent health, he was very suddenly seized with most agonizing pain, referred to the umbilicus. He was in collapse in less than ten minutes after the seizure. Extremities were cold and clammy, and beads of cold perspiration were seen over his entire person. His pulse was very fast and weak; rectal temperature, 97.5 F. He yelled with every breath.

I diagnosticated acute intestinal obstruction, stimulated him freely, gave morphine hypodermatically, and applied heat to the extremities. As soon as possible (in about a half-hour) he was put under ether preparatory to laparotomy. His pulse improved under stimulants and ether, and during the operation was of fair volume. Just before he was etherized he stated that the pain was most intense at the site of the old wound.

Remembering my former sad experience I was careful to avoid the cicatrix left from the last operation, and hence made a parallel incision about five inches long, an inch to the inner side of the same. The intestines were found so inflamed, thickened and matted together that it was quite a while before we could definitely make out the exact condition, which proved to be three parallel coils or knuckles of intestine bound down by a band. The inner coil was found to contain the portion through which the circular enterorrhaphy had been made. The band was cut and removed, adhesions broken up with considerable difficulty, and the intestine straightened.

Thinking that perhaps some narrowing of the gut might have taken place at the site of the circular enterorrhaphy, and that this might in part account for the obstruction, we deemed it unwise to close the abdomen

without definitely excluding this possible cause of the obstruction. Of course, we understood that the band was ample cause for the obstruction, and ordinarily we would have completed the operation as soon as this cause was removed, but in this case a portion of the intestine formerly operated upon was one of the knuckles under the band, and in addition (which was very suggestive of the closure of its lumen) this part was particularly thickened and hard upon pressure. I attempted to determine the patulousness of the intestine at this point as one would push his finger into the inguinal ring with the scrotum ahead of the finger. Owing to the extreme thickness of the intestine this could not be done.

An incision large enough to admit the index finger was made, the finger passed in, and the site of the circular enterorrhaphy examined. A very slight constriction was found at this point, not more, however, than could be accounted for by the cicatrix.

The wound in the intestine was closed, and as there was fluid (serum) in the belly, it was washed out and a glass drain left in the lower angle of the wound. The patient was put to bed and hot bottles packed around him. The operation lasted an hour and a half.

A half-hour after the operation his temperature was 98, pulse 120, respiration 36. As there had been but little discharge through the tube it was removed and the opening sewed up on the second day. The patient was then doing well, but on the third day the abdomen was considerably distended and painful to pressure. In the afternoon of this day his bowels moved spontaneously, after which the distention disappeared.

On the seventh day a fecal fistula was noted. This, however, was not large and remained open but four days. After this his recovery was uninterrupted. He remained in the hospital four months after the operation, working as a detail around the institution. When discharged he had grown quite stout and was in the enjoyment of perfect health.

The accidental cutting of the intestine in this case teaches that in operating for ventral hernia the incision should always be made to one side of the cicatrix in sound tissue, as there are no means of determining beforehand in what cases adhesions haven taken place between it and the intestine.

Possibly it might have been better not to have operated on this patient; the reduction of the mass and an elastic support might perhaps have been better. But when we consider that the tendency of such hernias is to steadily enlarge, even with elastic support, especially in the laboring classes, we must believe that the operative procedure is the better one.